



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,897	04/16/2004	Ravi Sundaram	03-4024	2220
32127 VERIZON PATENT MANAGEMENT GROUP 1515 N. COURTHOUSE ROAD, SUITE 500 ARLINGTON, VA 22201-2909	7550 09/11/2008		<div>EXAMINER</div> <div>PYZOCHA, MICHAEL J</div>	
			<div>ART UNIT</div> <div>2137</div>	<div>PAPER NUMBER</div>
			<div>NOTIFICATION DATE</div> <div>09/11/2008</div>	<div>DELIVERY MODE</div> <div>ELECTRONIC</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@VERIZON.COM

Office Action Summary

Application No.

10/826,897

Applicant(s)

SUNDARAM ET AL.

Examiner

MICHAEL PYZOSHA

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-54 are pending.
2. Response filed 07/10/2008 has been received and considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-17, 22, 25-29, 31, 34-38, 40, 44-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The above claims relate to further limiting the "applying a function" limitation of the independent claims. The above claims however are unclear because they relate to applying a hash function to various other values that are not the address of the independent claims and do not say how this applying takes place. The specification discloses (see paragraph [0026]) that the function can be done on, for example, the time of the request and/or the requestor's IP address. In other words the in the specification the returned address can be a value returned from hashing the time and the address, while the independent claims state the returned address is derived from a function applied to an obtained address and the dependent claims state that this function is a hash of different values. Appropriate change is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 8-11, 13-21, 23-26, 28-30, 32-35, 37-39, 41-45, 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Droms (Dynamic Host Configuration Protocol, March 1997) in view of Liston (US 20040103314).

As per claims 1, 21, 30, and 39, Droms discloses receiving a request from a user to obtain an address (see section 3.1 number 1); obtaining said address; applying a function to said address to obtain a return address, said return address corresponding to a used one of a block of addresses; returning said return address to said user (see section 3.1 number 2 where the function is the checking that the network address is not already in use).

Droms fails to disclose monitoring access to said address; and detecting an unauthorized attempt to access said address when an attempted address corresponds to an unused one of said block of address.

However, Liston teaches receiving requests to obtain an address, obtaining the address (see paragraphs [0038] and [0039]), monitoring accesses to the address and detecting unauthorized attempts when the request corresponds to an unused address (see paragraph [0031]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to using the monitoring of Liston in the Droms system.

Motivation to do so would have been to provide intrusion detection and countermeasures (see paragraphs [0012]-[0017]).

As per claims 8-11, 25, 26, 29, 34, 35, 38, 44, and 45 the modified Droms and Liston system discloses changing said used one of said block addresses over time (see Droms section 3 where the lease is a certain time and the network address is changed after the lease is over).

As per claims 13-20, 23, 24, 28, 32, 33, 37, 41-43, and 47-54, the modified Droms and Liston system discloses tracing a user when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0041]); blocking additional unauthorized attempts when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0042]); and wherein unused ones of said block of addresses corresponds to attack detectors (see Liston paragraphs [0038]-[0044]).

8. Claims 2-7, 22, 31, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Droms and Liston system as applied to claims 1, 21, 30, and 39 above, and further in view of Hasty, JR. et al. (US 20030179750).

As per claims 2, 22, 31, and 40, the modified Droms and Liston system fails to explicitly disclose hashing a user address of said user to obtain one value of the range of values mapping to said block of addresses, said one value designating said used one of said block of addresses.

However, Hasty, JR. et al. teaches such a hashing technique (see paragraph [0033]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the hashing technique of Hasty, JR. et al. in the modified Droms and Liston system.

Motivation to do so would have been to allow for auto-configuration and discover of IP to MAC address mappings (see Hasty, JR. et al. Abstract).

As per claims 3 and 7 the modified Droms, Liston, and Hasty, JR. et al. system fails to explicitly disclose hashing the time to obtain the address.

However, as discussed above Droms teaches changing an address over time based on a lease started when the address is requested and Hasty, JR. et al. teaches choosing an address based on a hashing a user address.

Because both Droms and Hasty, JR. et al. teach methods of choosing network addresses it would have been obvious to one skilled in the art to substitute the request time of Droms for the user address of Hasty, JR. et al. to achieve the predictable result of assigning a network address.

As per claims 4-6 the modified Droms, Liston and Hasty, JR. et al. system discloses tracing a user when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0041]); blocking additional unauthorized attempts when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0042]); and wherein unused

ones of said block of addresses corresponds to attack detectors (see Liston paragraphs [0038]-[0044]).

9. Claims 12, 27, 36 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Droms, Liston and Hasty, JR. et al. system as applied to claims 8, 25, 34, and 44 above, and further in view of Griffiths et al. (US 6286045).

As per claims 12, 27, 36, and 46 the modified Droms, Liston and Hasty, JR. et al. system fails to disclose randomly choosing an address.

However, Griffiths et al. teaches randomly choosing an IP address (see column 23 lines 47-49).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to randomly choose an address in the modified Droms, Liston and Hasty, JR. et al. system.

Motivation to do so would have been to determine round trip times (see column 23 lines 44-51).

Response to Arguments

10. Applicant's arguments filed 07/10/2008 have been fully considered but they are not persuasive. Applicant argues the rejection under the second paragraph of 35 USC 112 is improper; Droms fails to disclose applying a function to obtain the address; a combination with Liston is improper; there is no motivation to combine the references; Hasty fails to disclose applying a hash to the user's address; the combined references

fail to teach claims 3, 7 and 9; and there is no suggestion to combine Griffiths with Droms, Liston and Hasty.

With respect to Applicant's argument that the rejection under the second paragraph of 35 USC 112 is improper; Applicant states that the value is dependent on both the requested address and a hash of the user address; however claim 2 makes no mention of the requested address and therefore cannot require a dependency on both. Therefore, the rejection under the second paragraph of 35 USC 112 is maintained.

With respect Applicant's argument that Droms fails to disclose applying a function to obtain the address; Droms sends out the ICMP Echo Request to verify that the address is not already in use. This message must include the requested address to verify that it is no in use. This checking is applying a comparison function against the used addresses and when it is not in use the return address is obtained. Therefore, Droms discloses applying a function to obtain the address.

With respect to Applicant's argument that a combination with Liston is improper because a combination would result in all or none of the accesses being identified as improper; Droms is related to allocating the addresses and Liston is related to monitoring accesses to the addresses after this allocation. Therefore, a combination of Droms and Liston would not work as Applicant contends because after the address allocation of Droms the monitoring of Liston would occur.

With respect to argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is

some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Liston provides the motivation of providing intrusion detection and countermeasures.

With respect to Applicant's argument that Hasty fails to disclose applying a hash to the user's address; Hasty teaches hashing a MAC address to obtain a portion of an IP address. In this situation a client with a MAC address (i.e. the user's address) is requesting an IP address and this IP address is obtained by hashing the MAC address. Therefore, Hasty discloses applying a hash to the user's address.

With respect to Applicant's argument that the combined references fail to teach claims 3, 7 and 9, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Specifically, Applicant has failed to state how the cited references fail to teach the claimed limitations. In the rejection above: As per claims 3 and 7 the modified Droms, Liston, and Hasty, JR. et al. system fails to explicitly disclose hashing the time to obtain the address. However, as discussed above Droms teaches changing an address over time based on a lease started when the address is requested and Hasty, JR. et al. teaches choosing an address based on a hashing a user address. Because both Droms and Hasty, JR. et al. teach methods of choosing network addresses it would have been obvious to one skilled in the art to substitute the request

time of Droms for the user address of Hasty, JR. et al. to achieve the predictable result of assigning a network address. Additionally, Droms teaches claim 9 by stating that the addresses can change over time.

With respect to Applicant's that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Griffiths allows the system to determine roundtrip times.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PYZOSHA whose telephone number is (571)272-3875. The examiner can normally be reached on Monday-Thursday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number:
10/826,897
Art Unit: 2137

Page 11

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137